

Project WILD - Science and Civics
Correlations to the Virginia Standards of Learning

History and Social Sciences Standards

Key concepts are bolded

Civics & Economics

- CE.3 The student will demonstrate knowledge of citizenship and the rights, duties, and responsibilities of citizens by
- a) describing the processes by which an individual becomes a citizen of the United States;
 - b) describing the First Amendment freedoms of religion, speech, press, assembly, and petition, and the rights guaranteed by due process and equal protection of the laws;
 - c) describing the duties of citizenship, including obeying the laws, paying taxes, defending the nation, and serving in court;
 - d) **examining the responsibilities of citizenship, including registering and voting, communicating with government officials, participating in political campaigns, keeping informed about current issues, and respecting differing opinions in a diverse society;**
 - e) **evaluating how civic and social duties address community needs and serve the public good.**

Science and Civics Activities

- Defining Action - page 251
 - Who Cares? - page 131
 - Legal Eagles - page 128

- CE.4 The student will demonstrate knowledge of **personal character traits that facilitate thoughtful and effective participation in civic life** by
- a) practicing trustworthiness and honesty;
 - b) practicing courtesy and respect for the rights of others;
 - c) practicing responsibility, accountability, and self-reliance;
 - d) practicing respect for the law;
 - e) practicing patriotism.

Science and Civics Activities

- What Do People Think? - page 258
- What Did They Do Over There? - page 262

- CE.7 The student will demonstrate knowledge of how public policy is made at the local, state, and national levels of government by
- a) **explaining the lawmaking process;**
 - b) **describing the roles and powers of the executive branch;**
 - c) **examining the impact of the media on public opinion and public policy;**
 - d) **describing how individuals and interest groups influence public policy.**

Science and Civics Activities

- Structure Review – page 67
 - Wild Bill's Fate – page 77
- Do You Hear What I Hear? - page 117
 - What Do People Think? - page 262
- Testing The Law: TVA vs. Hill - page 108
 - Give Wildlife a Break - page 81

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Government:

- GOVT.1 The student will demonstrate mastery of the social studies skills citizenship requires, including the ability to
- a) analyze primary and secondary source documents;
 - b) create and interpret maps, diagrams, tables, charts, graphs, and spreadsheets;
 - c) **analyze political cartoons, political advertisements, pictures, and other graphic media;**
 - d) **distinguish between relevant and irrelevant information;**
 - e) **evaluate information for accuracy, separating fact from opinion;**
 - f) identify a problem and prioritize solutions;
 - g) **select and defend positions in writing, discussion, and debate.**

Science and Civics Activities

- What Do People Think? - page 262
- Give Wildlife a Break - page 81
- Do You Hear What I Hear? - page 117

- GOVT.6 The student will demonstrate knowledge of local, state, and national elections by
- a) describing the organization, role, and constituencies of political parties;
 - b) describing the nomination and election process;
 - c) examining campaign funding and spending;
 - d) **analyzing the influence of media coverage, campaign advertising, and public opinion polls;**
 - e) examining the impact of reapportionment and redistricting;
 - f) identifying how amendments extend the right to vote;
 - g) analyzing voter turnout.

Science and Civics Activities

- Do you Hear What I Hear? – page 117
- What’s Their Difference? – page 122

- GOVT.7 The student will demonstrate knowledge of the organization and powers of the national government by
- a) **examining the legislative, executive, and judicial branches;**
 - b) **analyzing the relationship between the three branches in a system of checks and balances.**

Science and Civics Activities

- Executive Influence - page 94
- Structure Review - page 67

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- GOVT.9 The student will demonstrate knowledge of the process by which public policy is made by
- examining different perspectives on the role of government;
 - explaining how local, state, and national governments formulate public policy;
 - describing the process by which policy is implemented by the bureaucracy at each level;**
 - analyzing how individuals, interest groups, and the media influence public policy.**

Science and Civics Activities

- Presidential Prerogatives - page 98
- Is There a Feather in My Cap? – page 125
- What's Their Difference? - page 123

- GOVT.10 The student will demonstrate knowledge of the operation of the federal judiciary by
- explaining the jurisdiction of the federal courts;
 - examining how John Marshall established the Supreme Court as an independent, co-equal branch of government through his opinions in *Marbury v. Madison*;
 - describing how the Supreme Court decides cases;**
 - comparing the philosophies of judicial activism and judicial restraint.**

Science and Civics Activities

- Testing the Law: TVA vs. Hill - page 109

- GOVT.16 The student will demonstrate knowledge of the role of government in the Virginia and United States economies by
- analyzing the impact of fiscal and monetary policies on the economy;
 - describing the creation of public goods and services;
 - examining environmental issues, property rights, contracts, consumer rights, labor-management relations, and competition in the marketplace.**

Science and Civics Activities

- Testing the Law: TVA vs. Hill - page 109

- GOVT.17 The student will **demonstrate knowledge of personal character traits that facilitate thoughtful and effective participation in civic life** by
- practicing trustworthiness and honesty;
 - practicing courtesy and respect for the rights of others;
 - practicing responsibility, accountability, and self-reliance;
 - practicing respect for the law;
 - practicing patriotism.

Science and Civics Activities

- What Do People Think? - page 258
- What Did They Do Over There? - page 262

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- GOVT.18 The student will understand that thoughtful and effective participation in civic life is characterized by
- a) obeying the law and paying taxes;
 - b) serving as a juror;
 - c) **participating in the political process;**
 - d) **performing public service;**
 - e) **keeping informed about current issues;**
 - f) **respecting differing opinions in a diverse society**

Science and Civics Activities

- Who Cares? - page 131
- Legal Eagles - page 128

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Science Standards

Key concepts are bolded

Life Science

LS.7 The student will investigate and understand that **organisms within an ecosystem are dependent on one another and on nonliving components of the environment.**

Key concepts include

- a) the carbon, water, and nitrogen cycles;
- b) **interactions resulting in a flow of energy and matter throughout the system;**
- c) complex relationships within terrestrial, freshwater, and marine ecosystems;
- and
- d) **energy flow in food webs and energy pyramids.**

Science and Civics Activities

- Limits to Living Here - page 210
- Who Lives in Soil? – page 215

LS.8 The student will investigate and understand that interactions **exist among members of a population.** Key concepts include

- a) competition, cooperation, social hierarchy, territorial imperative; and
- b) **influence of behavior on a population.**

Science and Civics Activities

- Limits to Living Here – page 210

LS.12 The student will investigate and understand **the relationships between ecosystem dynamics and human activity.** Key concepts include

- a) food production and harvest;
- b) **change in habitat size, quality, and structure;**
- c) change in species competition;
- d) population disturbances and factors that threaten and enhance species survival; and
- e) **environmental issues (water supply, air quality, energy production, and waste management).**

Science and Civics Activities

- Where Does Water Run? Page 148
- Change My pH and I'll Change Yours page 196
- A Place of Every Living Thing – page 228

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Science Standards

Key concepts are bolded

Earth Science

- ES.3 The student will investigate and understand how to read and interpret maps, globes, models, charts, and imagery. Key concepts include
- a) **maps** (bathymetric, geologic, **topographic**, and weather) and star charts;
 - b) **imagery** (**aerial photography** and satellite images);
 - c) direction and distance measurements on any map or globe; and
 - d) **location by latitude and longitude and topographic profiles.**

Science and Civics Activities

- Color Me Watershed – page 30
- Then and Now – page 41
- Getting Acquainted – page 55

- ES.9 The student will investigate and understand how freshwater resources are influenced by geologic processes and **the activities of humans**. Key concepts include
- a) **processes of soil development;**
 - b) development of karst topography;
 - c) **identification of groundwater zones including water table, zone of saturation, and zone of aeration;**
 - d) identification of other sources of fresh water including rivers, springs, and aquifers with reference to the hydrologic cycle;
 - e) dependence on freshwater resources and the effects of human usage on water quality; and
 - f) **identification of the major watershed systems in Virginia including the Chesapeake Bay and its tributaries.**

Science and Civics Activities

- Layering the Soil - page 172
- Color Me Watershed – page 30
- Can Water Get Through This? – page 158

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Biology

BIO.1 The student will **plan and conduct investigations** in which

- a) **observations of living organisms are recorded in the lab and in the field;**
- b) hypotheses are formulated based on direct observations and information from the scientific literature;
- c) variables are defined and investigations are designed to test hypotheses;
- d) **graphing and arithmetic calculations are used as tools in data analysis;**
- e) conclusions are formed based on recorded quantitative and qualitative data;
- f) sources of error inherent in experimental design are identified and discussed;
- g) validity of data is determined;
- h) chemicals and equipment are used in a safe manner;
- i) **appropriate technology, including computers, graphing calculators, and probeware, is used for gathering and analyzing data and communicating results;**
- j) research utilizes scientific literature;
- k) differentiation is made between a scientific hypothesis and theory;
- l) alternative scientific explanations and models are recognized and analyzed; and
- m) a scientific viewpoint is constructed and defended (the nature of science).

Science and Civics Activities

- To Breathe or Not To Breathe – page 189
- Who Lives in the Soil? – page 215

BIO.3 The student will investigate and understand the chemical and biochemical principles essential for life. Key concepts include

- a) **water chemistry and its impact on life processes;**
- b) the structure and function of macromolecules;
- c) the nature of enzymes; and
- d) the capture, storage, transformation, and flow of energy through the processes of photosynthesis and respiration.

Science and Civics Activities

- Change my pH and I'll Change Yours – page 196

BIO.9 The student will investigate and understand **dynamic equilibria within populations, communities, and ecosystems**. Key concepts include

- a) **interactions within and among populations including carrying capacities, limiting factors, and growth curves;**
- b) nutrient cycling with energy flow through ecosystems;
- c) succession patterns in ecosystems;
- d) **the effects of natural events and human influences on ecosystems;** and
- e) analysis of the flora, fauna, and microorganisms of Virginia ecosystems including the Chesapeake Bay and its tributaries.

Science and Civics Activities

- Limits to Living Here – page 210
- A Place for Every Living Thing – page 228

Project WILD - Science and Civics
Links to “Leadership for the 21st Century”
Student Expectations
Virginia Department of Education

Middle School:

- MS.6 The student will analyze the role of context in the process of leadership
- a) Evaluate the roles of leaders in the family, school, community, state and nation; and in distinct ethnic groups and different world cultures
 - b) Understand that as contexts change, the students role as follower or leader may change
 - c) Discuss the effects of changing situations upon leadership roles in the family, school, state, and nation

Science and Civics Activities

- Presidential Prerogatives - page 98

- MS.8 The students will transfer decision-making skills to new tasks.
- a) Evaluate potential outcomes of a decision
 - b) Consider advice from others when making a decisions
 - c) Generate objectives and strategies to make effective decisions
 - d) Monitor and evaluate progress toward accomplishing objectives.
 - e) Define and use parliamentary procedures to facilitate decision making

Science and Civics Activities

- Defining Action - page 251

- MS.12 The student will apply the concept of Stewardship
- a) Define stewardship
 - b) Devise plans to take care of and preserve the school, local, state, and national communities
 - c) Illustrate examples of ways in which good leaders protect their community and its resources

Science and Civics Activities

- Caring To Act - page 266

Project WILD - Science and Civics
Links to “Leadership for the 21st Century”
Student Expectations
Virginia Department of Education

High School:

HS.8 The student will analyze and refine decision-making skills.

- a) Take the lead in implementing, monitoring progress toward, and evaluating solutions.
- b) Support group decisions.
- c) Adjust group decisions according to changes within or outside the group.
- d) Refine skills in parliamentary procedure to facilitate meetings or discussions.

Science and Civics Activities

- What Do People Think? - page 258

HS.11 The student will evaluate the roles and responsibilities of citizenship.

- a) Demonstrate that citizenship requires gathering information, making informed choices, and acting responsibly.
- b) Devise ways to assume active roles in the class, school, locality, state, nation, and world, such as volunteering for additional duties, participating on a committee, and leading a group.

Science and Civics Activities

- Defining Action - page 251
- Caring To Act - page 266
- Planning To Act - page 269

HS.12 The student will evaluate the concept of stewardship.

- a) Debate methods that leaders may use to take care of and preserve their school, local, state, national, and world communities.
- b) Explain ways in which one becomes vested in the community and its resources.

Science and Civics Activities

- Caring To Act - page 266

To download the leadership curriculum visit:

<http://www.pen.k12.va.us/VDOE/Instruction/leadership/>

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